

Name KEY

Period \_\_\_\_\_

**Part 1 - Substances vs. Mixtures**

A substance is matter for which a chemical formula can be written. Elements & compounds are substances. Mixtures can be in any proportion & the parts are NOT chemically bonded. Identify any substance as an element (E) or a compound (C) & any mixture as homogeneous (HMM) or heterogeneous (HTM).

E 1 - Bar of GoldHTM 6 - raisin bran cerealC 2 - waterE 7 - ironHMM 3 - salt waterC 8 - sugarHTM 4 - soilE 9 - aluminumHTM 5 - coffee  
with creamHTM 10 - granola bar**Part 2 - Solutions, Colloids & Suspensions**

Identify each of the following as a solution (SOL), colloid (COL) or suspension (SUS).

SOL 11 - sugar waterCOL 14 - coffee with creamCOL 12 - smokeSUS 15 - chicken noodle soupCOL 13 - paintSOL 16 - kool-aid**Part 3 - Vocabulary**

Match the terms in Column II with the definitions in Column I. Write the letter in the blank.

A 17 - heterogeneous mixture containing a liquid in which visible particles never settle.

A - colloid

E 18 - contains 2 or more gaseous, liquid or solid substances blended evenly throughout the mixture.

B - compound

C 19 - substance in which all atoms are alike

C - element

F 20 - any material made of 2 or more substances that can be physically separated

D - heterogeneous mixture

I 21 - the scattering/ blocking of light by colloidal particles

E - homogeneous mixture

H 22 - heterogeneous mixture with large particles that settle.

F - mixture

D 23 - a mixture in which different materials can be easily distinguished

G - solution

G 24 - homogeneous mixture of particles so small they cannot be seen & will never settle out

H - suspension

B 25 - substance in which 2 or more elements are combined in a fixed proportion.

I - Tyndall effect



# Elements, Compounds & Mixtures

Identify each of the following as an element, compound or mixture. Use the letters **E** -element, **C** -compound, **Hm** for homogeneous mixture & **Ht** for heterogeneous mixture.

Hm 1. soda pop (Coke)

Ht 2. cherry vanilla ice cream

E 3. aluminum

Ht 4. soil

C 5. sugar

Hm 6. black coffee

Hm 7. sugar water

Ht 8. beach sand

E 9. iron

Ht 10. hot chocolate

## States of Matter

Complete the table by placing a check mark in the correct column.

Characteristics	Solids	Liquids	Gases	Plasma
Has a definite shape & volume	X			
Has no definite shape, but has a definite volume		X		
Has no definite shape & no definite volume			X	X
Will take the shape of its container		X	X	X
Particles will expand to fill all available space	X		X	X
Particles are packed tightly & "locked" in place	X			
Particles are close together, but freely move around		X		
Exists in stars & fire				X
Water at 0 C (Frozen)	X			
Water at 100 C (Boiling/ Vapor)			X	
Water at 50 C (Room Temp.)		X		